IIT students out to design a hi-tech tomorrow

Creations celebrated at Samsung Innovation Awards 2012

**NEW DELHI:** One day in the future you might not have to hold a mouse while working on your computer. Your right hand will be able to do all the things that your computer mouse does right now. You might also just get to see what your soul-mate really thinks of you. A day might also come when part of your brain could be artificially embedded in your hand – possibilities if all things go to plan according to IIT students from Delhi, Mumbai, Roorkee and Kanpur who were shortlisted for the “Samsung Innovation Awards 2012” on Thursday.

“Just put your right hand through this glove and see, your hand is now a computer mouse,” said Abhay, a third-year student from IIT-Bombay, introducing his innovation as the “Hand-Pic’D” which "aims to provide spatial coordinates thereby making it the perfect controller for anything from the mouse to robotic arms, that understands your motion, rather than you learning how to use it first.”

Do our outer-selves reflect who we really are on the inside? IIT-Delhi’s fourth year students Utkarsh and Devashish want you to know how you really look on the inside. “We have developed a system in which you feed in your interests and accordingly are set up with a stranger who has the same interests. The stranger then tags you according to your personality. So if you’ve been a geeky sort, then your avatar designed by this software would be an absolute nerd,” said Uttarish, explaining the workings of their innovation, “Zumble.com,” which also “aims to match strangers better and enrich avatars in finding the right heuristics to match strangers or in keeping the ecosystem safe from profanity.”

The next invention is meant for those suffering from paralysis as a result of a spinal cord injury. “In a spinal cord injury the brain stops communicating to a particular part or the whole body therefore resulting in complete paralysis. This invention allows you to inject a part of the brain cells into a prosthetic arm or leg which will function like the brain, thereby allowing the person to move that arm or leg whenever he wants to, without the brain in his head telling the arm or leg to do it,” said IIT-Delhi’s Paras Ajay who has developed the “tele-operation through brain machine interface” along with team-mates Achin Jain and Punnet Singhal.

**More creations**

Another interesting device was IIT-Kanpur’s “Vorwis” which explores the world of virtual reality and allows you to actually “touch”-things on your computer screen.

There were three equal winners declared for the awards, without there being a first second or third. Among the winners was CLASAT, an audio-based context and event recognition system for mobile platform invented by Anurag Kumar and Pranay Dighe from IIT-Kanpur, “Drishti” universal eyeglasses using tunable-focus lens system and an intelligence module which quantifies refractive errors without human intervention developed by Bhushan N. Kharbikar, Nitin T. Pawar, Ayaj V. Suryavanshi and Chaitali Joshi from IIT-Bombay, and the “Zumble.com” developed by IIT-Delhi’s Abhishek Gupta, Devashish Tyagi, Saurabh Kumar, Sherjil Ozair, and Utkarsh.

A special acknowledgement was made for “Vorwis” developed by Ganesh Pitchiah and Pragyanandesh from IIT-Kanpur.

The winning teams received a cash reward along with a Samsung trophy and a tablet for their institutes. The awards were instituted by Samsung India Electronics Limited along with the Foundation for Innovation and Technology Transfer (FITT). The innovations were shortlisted through two jury rounds comprising senior members from the IITs and Samsung’s research and development. The projects were judged based on innovativeness, feasibility, relevance and the overall impact it could have on masses.
Thanks to unpopular courses, 500 IIT seats may go vacant in 2012

Vanita Srivastava
vanita.srivastava@hindustantimes.com

NEW DELHI: Despite a mad rush for admission to IITs, nearly 500 seats in IIT may go vacant this year also, thanks to some highly unpopular courses.

The number of vacancies will however be less than last year because of several efforts including a fourth round of counselling. The exit policy introduced this year under which a child could surrender his seat and get back his registration money of Rs40,000 has also helped in reducing the vacancies this year.

“This year the number of vacant seats would be lesser than last year because of the fourth round of counselling. Our exit policy also helped,” Dr G E Reddy, organising chairman, JEE 2012 said.

Courses like pulp and paper engineering, ocean engineering, process engineering with MBA, mineral engineering with MBA and some more have been unpopular amongst the students.

While the vacancies in IIT BHU was 98, that in IIT Roorkee was 81. In the ISM Dhanbad, nearly 140 selected children had not reported. The institute has offered an ‘on spot’ admission to fill the vacant seats. In IIT Kharagpur the number of vacant seats this year was 49 as compared to 94 last year.

IIT Madras had a vacancy of 18, IIT Delhi 3 and IIT Bombay had 4 seats lying vacant.

“The vacancy in seats continue to be skewed. There are still some courses which are not popular,” said IIT Guwahati director Gautam Baruah.

A fourth round of unscheduled seat allotment was done this year simply to fill the remaining 350 seats.
Coming soon, a test to test the tester

HRD ministry moots national examination for school teachers on the lines of NET

TANIA AMEER KHAN

NEW DELHI: With an eye to improve the quality and standard of teaching in the country, the government has envisaged a new plan to recruit school teachers. It will be done through a special eligibility test to be held on the lines similar to the National Eligibility Test (NET) conducted by the University Grants Commission (UGC) for the recruitment of college teachers.

Sources in the Ministry of Human Resource Development told Millennium Post, ‘The main purpose of this panel will be to focus on the CTET initiated taken by the ministry, which will be an entrance test similar to the NET conducted by the UGC for teachers applying to universities and colleges.’

Many times in the past, the union human resource development minister Kapil Sibal has stressed the need to improve the professional competence of teachers at school and college levels. Now, he has constituted a special panel – the Central Advisory Board of Education Committee on National Mission on Teachers and Teaching – to look into the centrally conducted Central Teacher Eligibility Test (CTET), which will focus on hiring of school teachers at primary and secondary levels after they obtain a Bachelors in Education degree.

The panel will be headed by the minister of state in Sibal’s ministry D Purandeswari. The panel will also look into ways to enhance availability of teachers to address an acute shortage in the sector.

The panel, which comprises seven state education ministers; four education secretaries and representatives of a number of academicians from various universities and institutes, has been asked to submit its report within six months.

A recent study shows that there are about 5.23 lakh vacancies for school teachers at elementary level, even as there will be an additional requirement of around 5.1 lakh teachers to fulfil the provisions of pupil teacher ratio specified under Right to Education Act. Under the Rashtriya Madhyamik Shiksha Abhiyan, about 1.79 lakh additional teachers need to be appointed in secondary schools.
B-schools not catering to recruiters, says Maruti chairman

Our Bureau
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Management education in India is facing a crisis with an increasing number of industry participants complaining of an employability gap.

"The quality of management education offered by Indian B-schools is out of sync with the times and is not addressing the needs of industry," R.C. Bhargava, Chairman of Maruti Suzuki India, who also heads the Board of Governors of Indian Institute of Management (IIM), Ranchi, said. He was unveiling the Third Indian Management Conclave 2012 here on Thursday.

He blamed the declining quality of graduates on unhindered expansion of B-schools as well as low industry-academia interaction.

A report by testing and assessment company MeritTrac and MBAUniverse released recently said employability of MBAs had taken a dip to touch 21 per cent in 2011-12.

He said there was urgent need to fill this gap and called upon B-schools to change in order to cater to the evolving needs of their ultimate customers—the recruiters.

The report also found that the number of MBA seats had registered a 272.28 per cent increase in five years to touch 3,52,571 in 2011-12, from 94,704 in 2006-07.

"B-Schools must relook at their curriculum to suit the economic, social and developmental needs of the economy," he said, adding that the collegues need to include hands-on work experience as part of the curriculum.

Bala Balachandran, Kellogg professor of management and founder of Great Lakes Institute of Management in Chennai, stressed on the need to improve the delivery system.

Amit Agnihotri, Convenor of the Indian Management Conclave, said, "Majority of the over 3,500 B-schools are facing challenges both on admissions and placement front. They need to realise that the era of sub-standard academic delivery is over."

H Chaturvedi, Alternate President, Educational Promotion Society for India, called for setting up of a Government body to set standards exclusively for management schools along the lines of the All India Council for Technical Education.
Shutting down schools for scandal

Philip G. Altbach

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spectre of corruption is haunting the global campaign toward higher education internationalisation. An approximately decade-long global quest to increase the prevalence of higher education opportunities, an ever-increasing number of institutions and students seek opportunities to study abroad, and a widening range of courses and programs are offered. However, the spectre of corruption is haunting this quest. The proliferation of fake academic qualifications, the use of forged certificates, and the manipulation of admission processes are just a few examples.

Global higher education must recommit to traditional academic values to root out corruption within.

Widespread

Countries whose academic systems suffer from elements of corruption are increasingly involved in international higher education. Sending large numbers of students abroad, establishing relationships with overseas universities, and other activities. Corruption is not limited to countries that may have a reputation for less than fully circumstanced academic practices, but that problem occurs globally. Several scandals have recently been widely reported in the United States, including the private unaccredited "Tri-Valley University," a sham institution that admitted and collected tuition from foreign students. That institution did not require them to attend class, but rather funneled them into the labor market, under the noses of U.S. immigration authorities. In addition, several public universities have been caught admitting students, with substantial academic qualifications. Quality-assurance agencies in the U.K. have uncovered problems with "franchised" British-degree programmes, and similar scandals have occurred in Australia. A prominent example is the University of Wales, which was the second-largest university in the U.K., with 70,000 students enrolled in 130 colleges around the world. It had to close its highly profitable degree validation programme, which accounted for nearly two-thirds of institutional revenue.

With international higher education now a multibillion dollar industry around the world, individuals, countries, and institutions depending on income, status, and prestige — it is not surprising that corruption is a growing problem. Something is not done to ensure probity in international relationships in higher education, an entire structure — the trust, and commitment to the exchange of ideas and information — is at risk.

A serious and unsolved problem is the prevalence of unscrupulous agents and recruiters funnelling unqualified students to universities worldwide. A recent example was featured in Britain's Daily Telegraph (June 26, 2012) of an agent in China caught on video, offering to write admission essays and present other questionable help in admission to prominent British universities. No one knows the extent of the problem, although consistent news reports indicate that it is widespread, particularly in countries that send large numbers of students abroad, including China and India. Without question, agents now receive millions of dollars in commissions paid by the universities and, in some egregious cases, money from the clients as well. In Nottingham's case the percentage of students recruited through agents has increased from 10 per cent of the intake in 2005 to 25 per cent in 2011, with more than £1 million going to the agents.

ALTERED AND FAKE DOCUMENTS

Altered and fake documents have long been a problem in international admissions. Computer design and technology exacerbate it. Fraudulent documents have become a major industry in some parts of the world, and many universities are reluctant to accept documents from institutions that have been tainted with incidents of counterfeiting records. For example, a number of American universities no longer accept applications from some Russian students - because of widespread incidents of fraud, document tampering, and other problems. Document fraud gained momentum due to commission-based agents who have an incentive to ensure that students are "packaged" with impressive credentials, as their commissions depend on successful student placement. Those responsible for checking the accuracy of transcripts, recommendations, and degree certificates face an increasingly difficult task. Students who submit valid documentation are placed at a disadvantage since they are subjected to extra scrutiny. Examples of tampering with and falsifying results of the Graduate Record Examination and other commonly required international examinations used for admissions have resulted in the nullifying of scores, and even cancelling examinations in some countries and at universities as well as rethinking whether online testing is practical. This situation has made it more difficult for students to apply to foreign universities and has made the task of evaluating students for admission more difficult.

Several countries, including Russia and India, have announced that they will be using the Times Higher Education and Academic Ranking of World Universities (Shanghai rankings), as a way of determining the legitimacy of foreign universities for recognizing foreign degrees, determining eligibility for academic collaborations, and other aspects of international higher education regulations. This is unfortunate, since many excellent academic institutions are not included in these rankings, which mostly measure research productivity. No doubt, Russia and India are concerned about the quality of foreign partners and find the rankings convenient.

Several "host" countries have tightened up rules and oversight of cross-border student flows in response to irregularities and corruption. The U.S. Department of State announced in June 2012 that visa applicants from India would be subjected to additional scrutiny as a response to the "Tri-Valley scandal." Earlier both Australia and Britain changed rules and policy. Corruption is making internationalisation more difficult for the entire higher education sector. It is perhaps significant that continental Europe seems to have been less affected by shady practices - perhaps in part because international higher education is less commercialised and profit driven.

The Internet has become the "Wild West" of academic misrepresentation and chicanery. It is easy to set up an impressively web site and exaggerate the quality or lie about an institution. Some institutions claim accredited status that does not exist. There are even "accreditation mills" to accredit universities that pay a fee. A few include pictures of impressive campuses that are simply photoshopped from other universities.

What can be done?

With international higher education now a big business and with commercial gain an ever-increasing motivation for international initiatives, the problems mentioned are likely to persist. However, a range of initiatives can help improve the situation. The higher education community can recommit to the traditional "public good" values of internationalisation, although current funding challenges may make this difficult in some countries. The International Association of Universities' recent report. "Affirming Academic Values in Internationalization of Higher Education," is a good start. The essential values of the European Union's Bologna Initiative are also consistent with the values of internationalisation. The University of Nottingham, mentioned earlier, provides transparency concerning its use of agents, supervises those it hires, and in general adheres to best practice - as do some other universities in the U.K. and elsewhere. Accreditation and quality assurance are essential for ensuring that basic quality is recognised. Agencies and the international higher education community must ensure that they are carefully evaluated and that the results of assessment are readily available to the public and the international stakeholders.

Governmental, regional, and international agencies must coordinate their efforts and become involved in maintaining standards and protecting the image of the higher education sector. Contradictions abound. For example, the U.S. Department of State's Education USA seeks to protect the sector, while the Department of Commerce sees higher education just as an export commodity. Government agencies in the U.K. and Australia seem also to be mainly pursuing commercial interests.

Closeness-raisers quoting about ethics and good practice in international higher education and awareness of emerging problems and continuing challenges are needed. Attention. Prospective students and their families, institutional partners considering joint projects and research, and other stakeholders must be more sophisticated and vigilant concerning decision-making. The Boston College Center for International Higher Education's Corruption Monitor is the only clearinghouse for information, relating directly to corrupt practices; additional sources of information and analysis will be helpful.

The first step in solving a major challenge to higher education internationalisation is recognition of the problem itself. The higher education community itself is by no means immune; and growing commercialisation makes some people reluctant to act in ways that may threaten profits. There are individuals within the academic community who lobby aggressively to legitimize dubious practices. Yet, if nothing is done, the higher education sector worldwide will suffer and the internationalisation drive toward internationalisation will be threatened.

Author's note: I acknowledge comments from universities, and lecturers. (Philip G. Altbach is Monan University Professor and director of the Center for International Higher Education at Boston College. Email: Altbach@bc.edu)